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REMARKS

Status of the Claims

Claim 1 has been amended without prejudice to or disclaimer of the subject matter therein as described elsewhere. Responsive to the restriction requirement issued June 11, 2002, Claims 19-20 have been cancelled without prejudice to or disclaimer of the subject matter therein and new Claims 21-22 have been added. Support for the amendments and new claims can be found in the specification as described below. Claims 1-18 and 21-22 are now pending. The amendments and new claims are responsive to the Examiner's suggestions made during the February 21, 2003 Interview.

The Examiner's comments are addressed below in the order set forth in the Final Office Action dated December 18, 2002.

Examiner Interview

Applicants wish to thank the Examiner for the interview conducted on February 21, 2003, with inventors Bill Evans and Oliver McDonald, and Applicants' representatives, Scott Elmer, Murray Spruill, and Eric Kron. During the interview, the Examiner indicated that claims reciting that the PCR primers anneal to a region of the DNA segment outside the polymorphism would be free of the art. Applicants wish to thank the Examiner for the helpful suggestion.

The Rejections of the Claims Under 35 U.S.C. § 103 Should Be Withdrawn

Claims 1-16 stand rejected under 35 U.S.C. § 103 over Patel et al. (1991) Nucleic Acids Res., 19:3561-3567 in view of Michalatos-Beloin et al. (1996) Nucleic Acids Res. 24:4841-4843.

Although Applicants respectfully traverse the rejection, for the sake of expediting prosecution, Claim 1 has been amended to recite that "the PCR amplification is performed with a first primer capable of annealing to a region adjacent to the first NP and distal to the second NP and a second primer capable of annealing to a region adjacent to the second NP and distal to the first NP...." Support for this amendment can be found in the specification, paragraph spanning pages 3-4, as well as in original Claim 19.

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Applicants have further added new Claim 21, which specifies that "the DNA segment further comprises a DNA sequence immediately 5' to the first NP that encompasses an annealing site for a primer and a DNA sequence immediately 3' to the second NP that encompasses an annealing site for a primer...." Support for this claim can be found in the specification on page 7, lines 10-12. New Claim 22 has been added which depends from Claim 21 and recites various lengths for the DNA sequence. Support for this claim can be found in the specification on page 7, lines 12-14.

The amendment to Claim 1 and the subject matter of Claim 21 are in accordance with the Examiner's suggestion for overcoming the rejection. Consequently, Applicants respectfully request that the rejection be withdrawn.

Claim 17 is rejected under 35 U.S.C. § 103 over Patel and Michalatos-Beloin in further view of Krynetski *et al.* (1995) *Proc. Natl. Acad. Sci.*, 92:949-953. Applicants respectfully traverse.

As described above, amended Claim 1 and new Claim 21 alleviate the Examiner's concerns regarding Patel and Michalatos-Beloin. Krynetski merely teaches a point mutation of the TPMT gene and, because the rejection based upon the primary references has been obviated, the rejection should be withdrawn.

Claim 18 is rejected under 35 U.S.C. § 103 over Patel and Michalatos-Beloin in further view of Martin *et al.* (2000) *Am. J. Hum. Genet.*, 67:383-394. Applicants respectfully traverse.

Amended Claim 1 and new Claim 21 alleviate the Examiner's concerns regarding Patel and Michalatos-Beloin. Martin teaches SNPs in the region surrounding the APOE gene and, because the rejection based upon the primary references has been obviated, the rejection should be withdrawn.

Consideration Of Previously Submitted Information Disclosure Statement

It is noted that an initialed copy of the PTO Form 1449 that was submitted with Applicants' Information Disclosure Statement mailed on April 11, 2003 has not been returned to Applicants' representative with the Advisory Action. Accordingly, it is requested that an

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initialed copy of the Form 1449 be forwarded to the undersigned with the next communication from the PTO. In order to facilitate review of the references by the Examiner, a copy of the Information Disclosure Statement and the Form 1449 are attached hereto. Copies of the cited references were provided at the time of filing the original Information Disclosure Statement, and, therefore, no additional copies of the references are submitted herewith. Applicants will be pleased to provide additional copies of the references upon the Examiner's request if it proves difficult to locate the original references.

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CONCLUSION

In view of the aforementioned amendments and remarks, Applicants respectfully submit that the rejections of the claims under 35 U.S. C. § 103 are obviated and that the application is now in condition for allowance. Early notice to this effect is solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those, which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: MAIL STOP RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on May 6, 2003.

Nora C. Martinez